



# EGLIN 2015 ANNUAL DRINKING WATER QUALITY REPORT

TESTING PERIOD: 1 JANUARY - 31 DECEMBER 2015



## WE ARE PLEASED TO REPORT THAT OUR DRINKING WATER MEETS ALL FEDERAL AND STATE REQUIREMENTS

The Bioenvironmental Engineering Flight at Eglin Air Force Base (AFB) is pleased to provide you with the 2015 Annual Drinking Water Quality Report. Our goal is to provide you a safe and dependable supply of drinking water. We want to keep you informed about the excellent water provided over the past year. The Bioenvironmental Engineering Flight routinely monitors for contaminants in your drinking water in accordance with federal and state laws, rules, and regulations. This report is based on the results of our monitoring for the period of January 1 to December 31, 2015, except where indicated otherwise. Data in this report obtained prior to January 1, 2015 reflect the most recent testing as required by Safe Drinking Water Act laws, rules, and regulations.

## WHERE DOES OUR DRINKING WATER COME FROM?

The Floridan Aquifer is one of the most productive aquifers in the world with an underlying area of about 100,000 square miles. In the figure to the right, the areas in gray indicate the buried portion of the aquifer containing drinking water. Eglin AFB draws water from the Floridan Aquifer to supply two Public Water Systems: Eglin West Housing and Eglin Main. Eglin West Housing draws water from ten wells and Eglin Main draws from eight wells. Because of the excellent quality of our water, the only treatment required is chlorine for disinfection purposes. Additionally, fluoride is added to the Eglin West Housing and Eglin Main water systems for dental health purposes.

In 2015, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our two systems. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are two potential sources of contamination identified for Eglin West Housing and one for Eglin Main, all with moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp).



Source: [www.water.usgs.gov](http://www.water.usgs.gov)

This report is published electronically to conserve paper but may be mailed to consumers upon request. To attain a paper copy of this report, contact Mr. Craig Bennett at (850) 883-8607.

## EGLIN MAIN 2015 CONTAMINANTS

Continuous processes are in place to ensure quality water treatment and to protect our water resources. “Eglin AFB works diligently to provide top quality water to every tap,” said Mr. Craig Bennett, Environmental Health Director. All our customers are asked to help protect our water; please do not flush your unused or unwanted medications down toilets or sink drains. For more information please visit <http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>.

Thank you for taking an interest in our water sources which are critical to the health of our community, and our way of life. If you have any questions or concerns about the information provided in this report, please contact Bioenvironmental Engineering Flight at (850) 883-8607.

### INORGANIC CONTAMINANTS

| Contaminant and Unit of Measurement | Sampling Date | MCL Violation | Level Detected | Range of Results | MCLG | MCL | Likely Source of Contamination   |
|-------------------------------------|---------------|---------------|----------------|------------------|------|-----|--|
| Antimony (ppb)                      | Apr 14        | N             | 2              | ND - 2           | 6    | 6   | Discharge from petroleum refineries; fire retardant; ceramics; electronics; solder   |
| Barium (ppm)                        | Apr 14        | N             | 0.016          | 0.012 - 0.016    | 2    | 2   | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits   |
| Beryllium (ppb)                     | Apr 14        | N             | 0.1            | ND - 0.1         | 100  | 100 | Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries                                       |
| Fluoride (ppm)                      | Apr 14        | N             | 0.32           | 0.26 - 0.32      | 4    | 4.0 | Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm |
| Sodium (ppm)                        | Apr 14        | N             | 14             | 12 - 14          | NA   | 160 | Salt water intrusion, leaching from soil   |

NOTE: DEFINITIONS FOR UNFAMILIAR TERMS AND ABBREVIATIONS FOR TABLES CAN BE FOUND ON PAGE 6 OF THIS REPORT.

## EGLIN MAIN 2015 CONTAMINANTS CONT.

### STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

| Disinfectant or Contaminant and Unit of Measurement | Sampling Dates | MCL or MRDL Violation | Level Detected | Range of Results | MCLG or MRDLG | MCL or MRDL | Likely Source of Contamination            |
|---|----------------|-----------------------|----------------|------------------|---------------|-------------|---|
| Chlorine (ppm)<br>(Stage 1)                         | Jan - Dec 15   | N                     | 0.6            | 0.42 - 0.7       | MRDLG = 4     | MRDL = 4.0  | Water additive used to control microbes   |
| Total Trihalomethanes (TTHM) (ppb)                  | Jul 15         | N                     | 7.11           | NA               | NA            | MCL = 80    | By-product of drinking water disinfection |

### LEAD AND COPPER (TAP WATER)

| Contaminant and Unit of Measurement | Sampling Dates | AL Exceeded | 90th Percentile Result | No. of sampling sites exceeding the AL | MCLG | AL  | Likely Source of Contamination   |
|-------------------------------------|----------------|-------------|------------------------|--|------|-----|--|
| Copper (ppm)                        | Jun- Sep 14    | N           | 0.086                  | 0 of 22                                | 1.3  | 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (ppb)                          | Jun- Sep 14    | N           | 5.5                    | 2 of 22                                | 0    | 15  | Corrosion of household plumbing systems, erosion of natural deposits                                   |

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# EGLIN WEST HOUSING

## 2015 CONTAMINANTS

### RADIOACTIVE CONTAMINANTS

| Contaminant and Unit of Measurement         | Sampling Dates             | MCL Violation | Level Detected | Range of Results | MCLG | MCL | Likely Source of Contamination |
|---|----------------------------|---------------|----------------|------------------|------|-----|--------------------------------|
| Radium 226 + 228 or combined radium (pCi/L) | Mar 08<br>Feb 13<br>Jul 14 | N             | 1.5            | 0.1 - 1.5        | 0    | 5   | Erosion of natural deposits    |

### INORGANIC CONTAMINANTS

| Contaminant and Unit of Measurement | Sampling Dates | MCL Violation | Level Detected | Range of Results | MCLG | MCL | Likely Source of Contamination   |
|-------------------------------------|----------------|---------------|----------------|------------------|------|-----|--|
| Barium (ppm)                        | May 14         | N             | 0.022          | 0.0065 - 0.022   | 6    | 6   | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder  |
| Nickel (ppb)                        | May 14         | N             | 2              | ND - 2           | 100  | 100 | Pollution from mining and refining operations. Natural occurrence in soil  |
| Fluoride (ppm)                      | May 14         | N             | 1.18           | 0.25 - 1.18      | 4    | 4.0 | Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm |
| Lead (point of entry) (ppb)         | May 14         | N             | 2              | ND - 2.0         | 0    | 15  | Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder  |
| Sodium (ppm)                        | May 14         | N             | 63             | 10 - 63          | NA   | 160 | Salt water intrusion, leaching from soil   |

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## EGLIN WEST HOUSING 2015 CONTAMINANTS CONT.

### STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

| Disinfectant or Contaminant and Unit of Measurement | Sampling Dates | MCL or MRDL Violation | Level Detected | Range of Results | MCLG or MRDLG | MCL or MRDL | Likely Source of Contamination            |
|---|----------------|-----------------------|----------------|------------------|---------------|-------------|---|
| Chlorine (ppm) (Stage 1)                            | Jan - Dec 15   | N                     | 0.82           | 0.5 - 0.97       | MRDLG = 4     | MRDL = 4.0  | Water additive used to control microbes   |
| Haloacetic Acids (five) (HAA5) (ppb)                | Jul 15         | N                     | 2.6            | ND - 2.6         | NA            | MCL = 60    | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHM) (ppb)                  | Jul 15         | N                     | 47.5           | 21.1 - 47.5      | NA            | MCL = 80    | By-product of drinking water disinfection |

### LEAD AND COPPER (TAP WATER)

| Contaminant and Unit of Measurement | Sampling Dates | AL Exceeded | 90th Percentile Result | No. of sampling sites exceeding the AL | MCLG | AL  | Likely Source of Contamination   |
|-------------------------------------|----------------|-------------|------------------------|--|------|-----|--|
| Lead (ppb)                          | Jun - Sep 14   | N           | 1.1                    | 0 of 21                                | 1.3  | 1.3 | Corrosion of household plumbing systems; erosion of natural deposits                                   |
| Copper (ppm)                        | Jun - Sep 14   | N           | 0.08                   | 0 of 21                                | 0    | 15  | Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives |

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## EPA DEFINITIONS

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Not Detected (ND):** Indicates the substance was not found by laboratory analysis.

**Parts per billion (ppb) or Micrograms per liter ( $\mu\text{g}/\text{l}$ ):** One part by weight of analyte to 1 billion parts by weight of the water sample.

**Parts per million (ppm) or Milligrams per liter ( $\text{mg}/\text{l}$ ):** one part by weight of analyte to 1 million parts by weight of the water sample.

**Picocurie per liter ( $\text{pCi}/\text{L}$ ):** Measure of the radioactivity in water.



## ADDITIONAL INFORMATION

### LEAD SPECIFIC INFORMATION

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Eglin AFB is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### GENERAL CONTAMINANT INFORMATION

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- E. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public consumption.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

### VULNERABLE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.